Plugin for Microsoft™ Dynamics™ CRM 2013 - 2015

For On Premise and Online Deployments

User Guide v. 2.3

April 2015

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1. Introduction

Apex Planner is a plugin module for Microsoft Dynamics CRM tailored to visually schedule resources within Microsoft Dynamics CRM Service Module. It is designed for businesses that need to streamline a **shared calendar management**.

Apex Planner enhances the service calendar adding features from Microsoft Outlook in a web-based planning table. It extends the standard calendar allowing **drag-and-drop features** to reschedule or assign appointments to other users or facilities. Users can be grouped into teams to access only the calendar of a given team at a time. Facilities can be grouped into sites.

Each appointment can be moved in time and assigned to other users through a drag and drop. The same can be done for facilities and equipment. The information included in each appointment is displayed in a wider area to allow the schedule manger to get all the facts without opening each appointment.

A **custom form** allows the creation of appointments and service activities without using the Microsoft Dynamics CRM standard form. Within a form, you can edit and clone each appointment directly. You can also choose to use the **standard CRM forms**, if you want to edit your custom fields or if you like them more.

Apex Planner allows you to allow a specific number of users to execute the application, using a specific **security role**. You can also **filter the users** you want to display on the Planner.

Apex Planner is available for Microsoft Dynamics CRM 2013-2015, Microsoft Dynamics CRM Online and Microsoft Dynamics CRM for Outlook.

1.1. What's new in 2.3?

- **Improved performances:** Apex Planner is now much faster when loading and updating both appointments and service activities.
- **Availability search:** Search for available time slots to plan your appointments and service activities easily.
- "Execute Apex Planner" role has now only the minimum permission required to launch the Planner.
- Added compatibility to CRM 2015 Update 1.
- Resolved numerous bugs.

2. Installation and configuration

1. Import the solution into Dynamics CRM.
2. Make sure that the maximum file size is greater than the solution file (which is around 7MB). You can set the Maximum File Size of Dynamics CRM under Settings -> Administration -> System Settings -> E-Mail. Scroll down the window to find the **Maximum File Size (in kilobytes)** text box. Set a value greater than 7500. You can set this value back to the original value after importing the solution.
3. Should the import process give a warning such "0x80048026 *Translated labels for the following languages could not be imported because they have not been enabled for this organization: xxxx*", then it can be ignored. The cause of this warning is that the system you are importing Apex Planner to does not contain all the Planner languages.

2.1. Default Configuration

Grant the proper permission to all users you want to use Apex Planner. Go to "Settings - Administration - Users". Select the desired user(s) and open security roles. Click on "Manage Roles" and check the role "**Execute Apex Planner**".

In "Settings - Extensions" you can find "Planner Configurations". The first configuration you have to create is the default configuration. Click on the "New" button on the ribbon. Here there are some tips on how to fill the fields.

GENERAL Section	
Name	It must be "Default" for the default configuration, no constraints for other configurations.
License key	The license key is mandatory only for the Default solution; leave it blank for other planner configurations.
Owner	The owner of the configuration.
User resource group	The resource group used to filter the users on the Planner. If the field is empty, all CRM users will be loaded. Use this field to keep the Planner below the license limits. Fill this field only on the Default configuration, because this is a global setting.
APPEARENCE Section	
Timeline view	The maximum number of users or facilities displayed in a single page when using the timeline view (suggested 7).
Month / Week view	The maximum number of users or facilities displayed in a single page when using the month view or the week view (suggested 3).
Day / Work Week view	The maximum number of users or facilities displayed in a single page when using the day view or the work week view (suggested 2).

Timeline visible days	The number of days shown on timeline view.
Day / Work Week view zoom level	Use this property to specify the time interval, which is the amount by which the time scale displayed in the scheduling area increments.
Users / Resources / Unsch. panel	Expands or collapses the “Users – Resources – Unscheduled” panel at startup.
Calendar panel	Expands or collapses the “Calendar” panel at startup.
Default view	The view from which the planner starts.
Default team	Default filter for users.
Default site	Default filter for resources.
Default tab focus	The tab that is selected when the planner starts.
Default start time	Default start time for new appointments. The date format must be “HH:mm”: examples of correct dates are “08:30” and “23:50”.
Default finish time	Default finish time for new appointments. This date format must be “HH:mm” too.

SETTINGS Section

Cached days	The period loaded by the application, expressed in days (suggested 7). If you specify a big value, the planner pre-loads a large amount of appointments in the future. A lesser value means that the planner will reload more frequently.
Time Zone for Facilities	This setting applies only to appointments that concern resources. You can choose if the appointment dates are based on local time or on facility time. See section 7.2 for more information.
Show confirmation messages	If yes, the planner asks for confirmation every time you make a change, and displays success and failure messages.
Use standard CRM forms	If yes, the planner opens standard CRM forms in a new window, instead of showing the custom internal form.
Set owner as app. organizer	If yes, every time you plan an appointment you are set as both the owner and the organizer of the appointment. This setting does not apply to service appointments.
Show unscheduled appointments	If yes, shows on the planner appointments and service appointments with no resources: all those activities are shown under their owner section.

Select all users / resources at startup	If yes, all resources are loaded at startup. If "Default tab focus is Users", all users will be loaded. Otherwise, all facilities will be loaded.
Refresh interval	If you choose an interval, the Planner will refresh automatically.
Enable scheduling conflict	Choose if the Planner shows a message every time it finds a scheduling conflict. The conflicts are the same of the CRM. You can choose to ignore a conflict by clicking "Yes" on the "Ignore and Save" prompt.

REMINDERS Section

Send reminder mail	Choose if the Planner sends reminder mails when creating/updating/deleting appointments. See section 5.1 for more information.
Object	Custom object for reminder mails. See section 7.1 for more information.
On create	Custom message for "On create" reminders. See section 7.1 for more information.
On update	Custom message for "On update" reminders. See section 7.1 for more information.
On delete	Custom message for "On delete" reminders. See section 7.1 for more information.

APPOINTMENTS Section

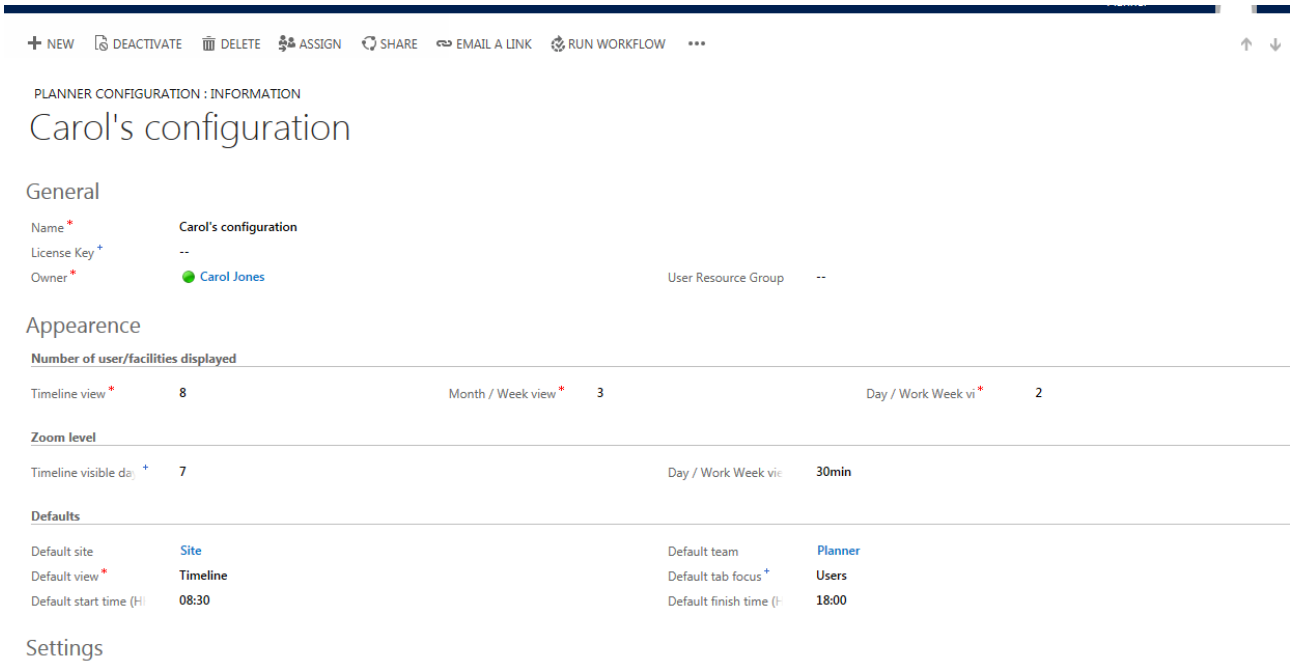
Appointment font size	Select the font size of the text inside appointment boxes.
Show location	If yes, the Planner shows the appointment's location on its box.
Show description	If yes, the Planner shows the appointment's description on its box.
Show duration	If yes, the Planner shows the appointment's duration (expressed in hours) on its box.
Show time interval	If yes, the Planner shows the appointment's time interval (start DateTime and end DateTime) on its box.
Show service	If yes, the Planner shows the service appointment's service on its box.
Show site	If yes, the Planner shows the service appointment's site on its box.
Show customers	If yes, the Planner shows the service appointment's customers (a list of full names separated by ";") on its box.

Colors	Choose here which color you want to associate to each appointment status. More information provided in section 7.4.

2.2. Custom configurations

If you need custom configurations, add a new “Planner Configuration” entity and assign the configuration to the desired user. The user must belong to the “Execute Apex Planner” security role. Fill the fields according to the user’s needs.

An example of a custom configuration for the user “Carol Jones” is the following:



This configuration will be used every time Carol opens the planner, and overrides the “Default” one. Note that you do not need to enter the license key or the resource group on Custom configurations, because they are loaded only from the Default configuration.

2.3. About the license

The license is bound to an **Organization Unique Name**: it can be used only for the CRM organization for which it was created

The license key **limits the number of users and the time interval**. You can see the maximum number of users allowed and the expiration date opening the “About” window into the Planner. Suppose that you have a license for 50 users that expires on January 1. If your organization has more than 50 users to license or if the current date is over January 1, the planner reports an error.

There are three types of licenses:

DEMO licenses

These licenses last for one month, but guarantee an unlimited number of users. This is the kind of license that is provided when you register on the Apex site.

SUBSCRIPTION licenses

These licenses include a limited number of users and an expiration date.

PERPETUAL licenses

With these licenses, you have a limited amount of users, but no expiration date.

Within one year from the purchase date, you can download and install the latest Apex Planner releases: your license will remain valid. After a year (if your license is not expired yet, mainly because it is PERPETUAL) you can still keep using Apex Planner, but cannot install the following releases. You can see the maintenance expiring date in the "About" window.

The minimum number of users you need to have in your license is calculated as **the number of users loaded plus the number of users that have "Execute Apex Planner" role**. If a user matches both of these rules, is counted only one time. The "About" windows shows also information about the number of licenses you are currently using.

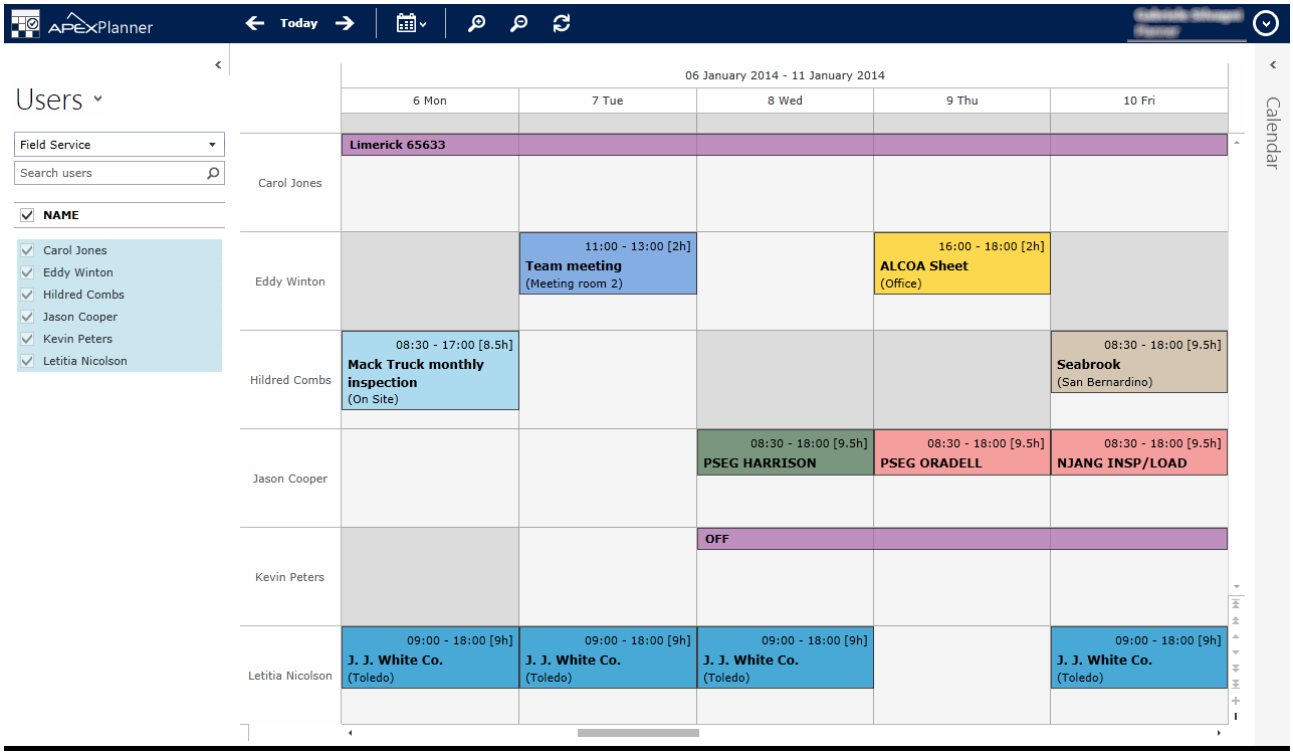
If you want less users to use the planner, filter them using the "User resource group" field or remove them "Execute Apex Planner" role.

3. The user interface

3.1. Main page

When you open the Apex Planner main page, you have nothing displayed, because there are no users or resources selected. You have to select at least one user or one resource in order to view their appointments.

The main page looks like the following picture:



You can notice some buttons on the top the window: the following table explains their actions.

←	Show the previous appointments.
Today	Go to today.
→	Show the upcoming appointments.
	Opens a drop-down list that allows you to change the current view; the icon you see is the current planner view.
	Switch to Timeline view
	Switch to Day view
	Switch to Work Week view

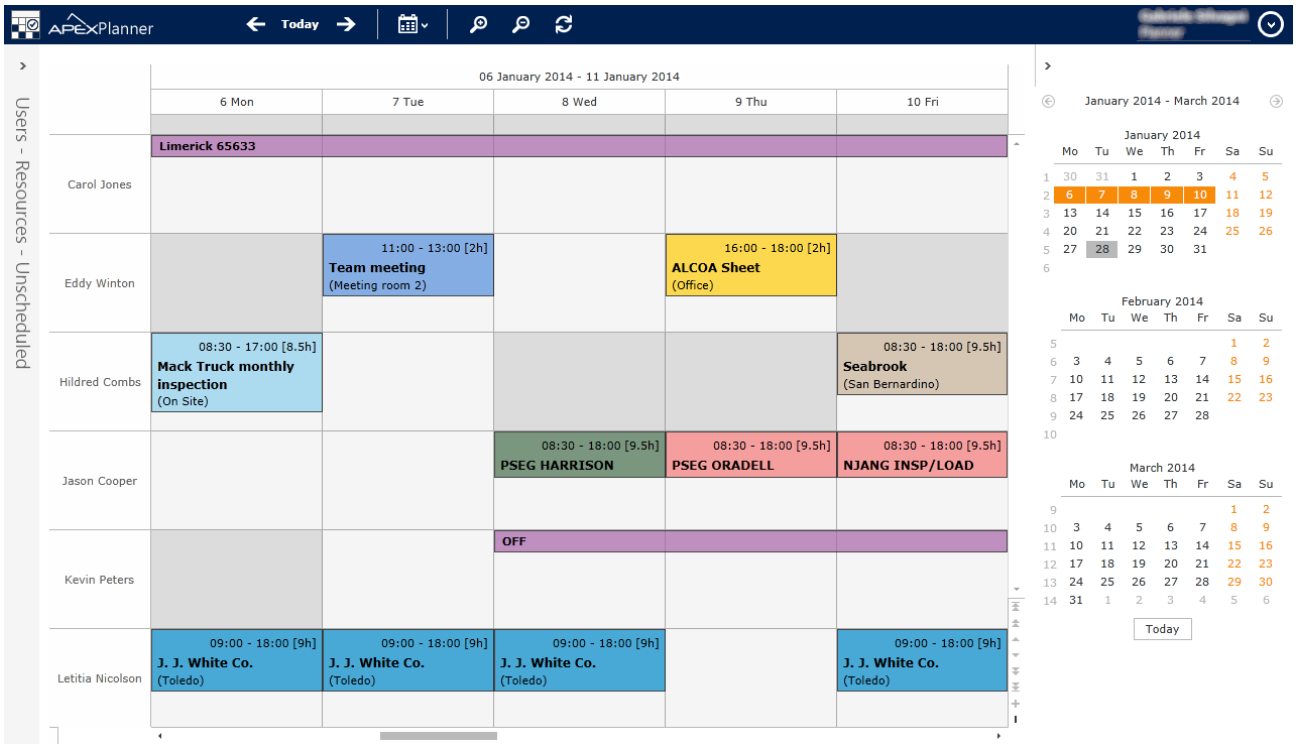
	Switch to Week view Switch to Month view
	Decrease the amount of appointments displayed (zoom in).
	Increase the amount of appointments displayed (zoom out).
	Refresh the planner.
	Opens a menu that contains other actions. Print the current view Open your Planner Configuration Open the About dialog

3.2. Type of views

Apex Planners has five different type of views: timeline view, month view, week view, work week view and day view. You can switch between the view types using the “Change view” button on the top of the planner.

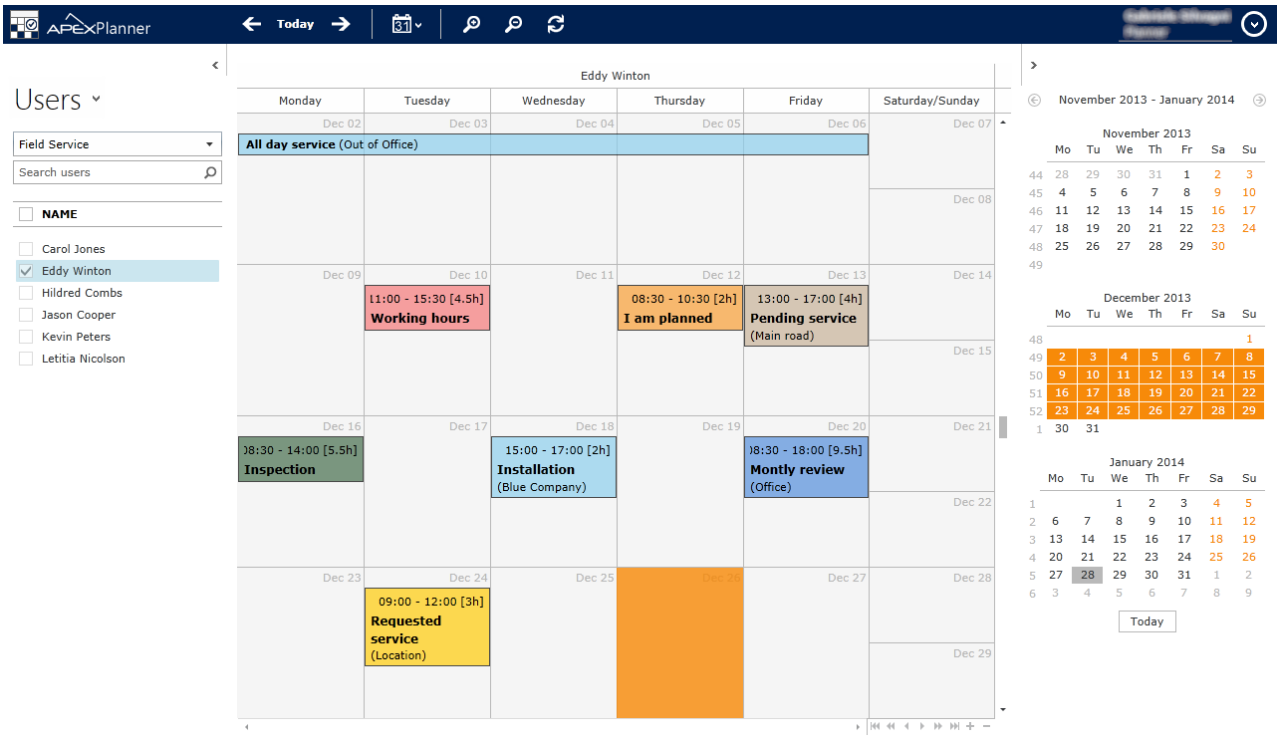
3.2.1. Timeline view

The Timeline view displays appointments as horizontal bars along the time scales, and provides end-users with a clearer overview for scheduling purposes.



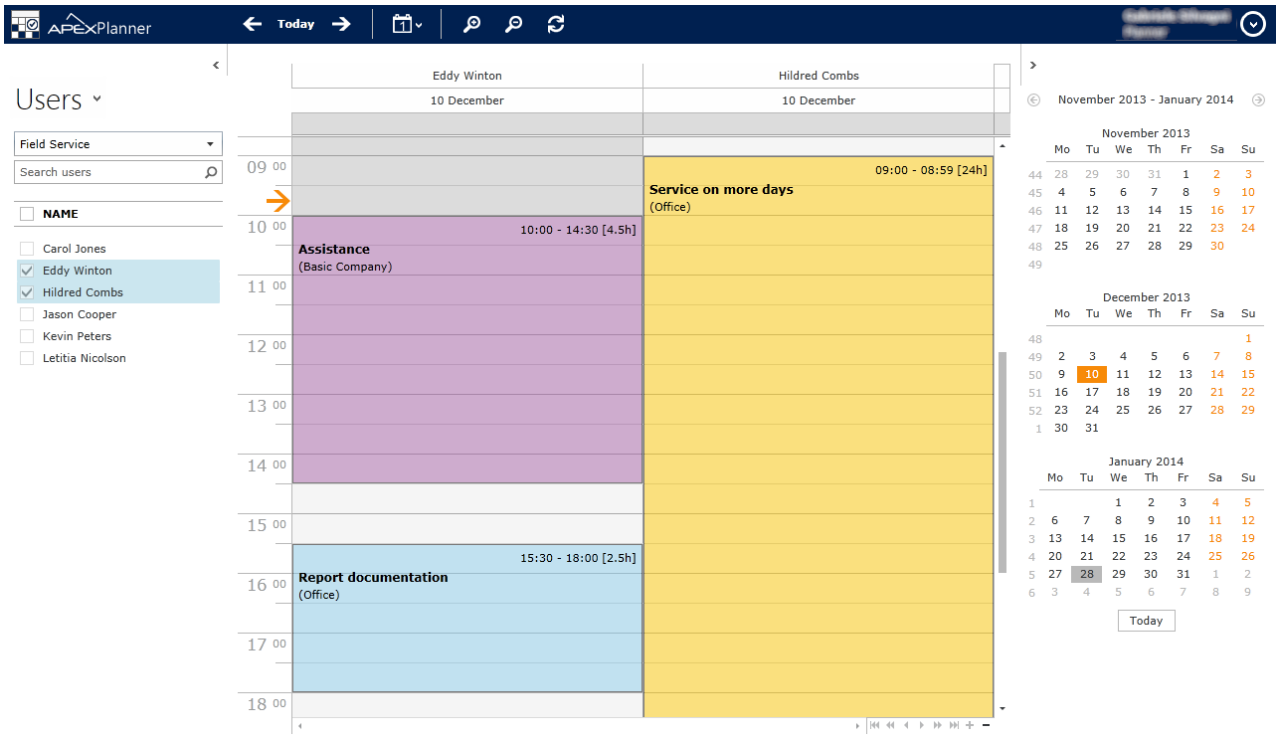
3.2.2. Month view

The Month view is the least detailed of the views, and is designed to allow your end-users to browse and analyze long-term plans. This view positions the days one after another horizontally so that they form weeks, while weeks are placed one under another.



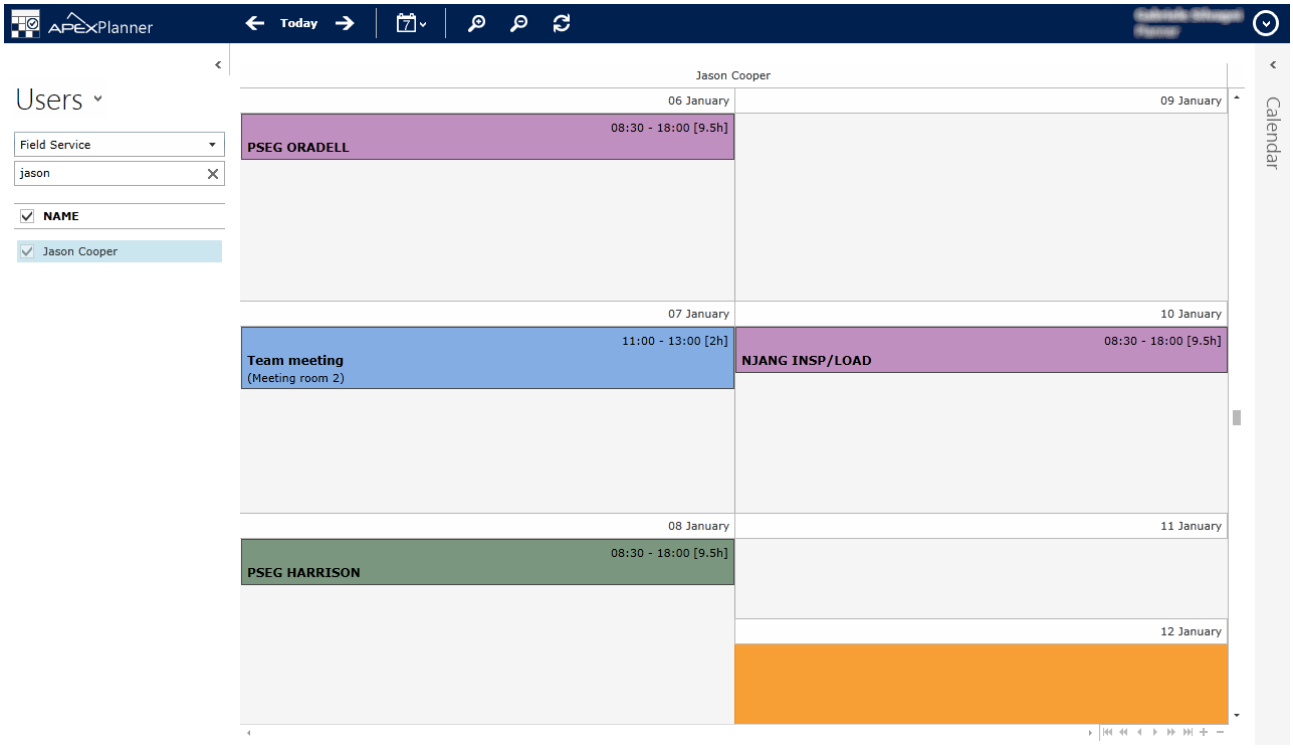
3.2.3. Day view

The Day view gives the most detailed view of appointments for a particular day.



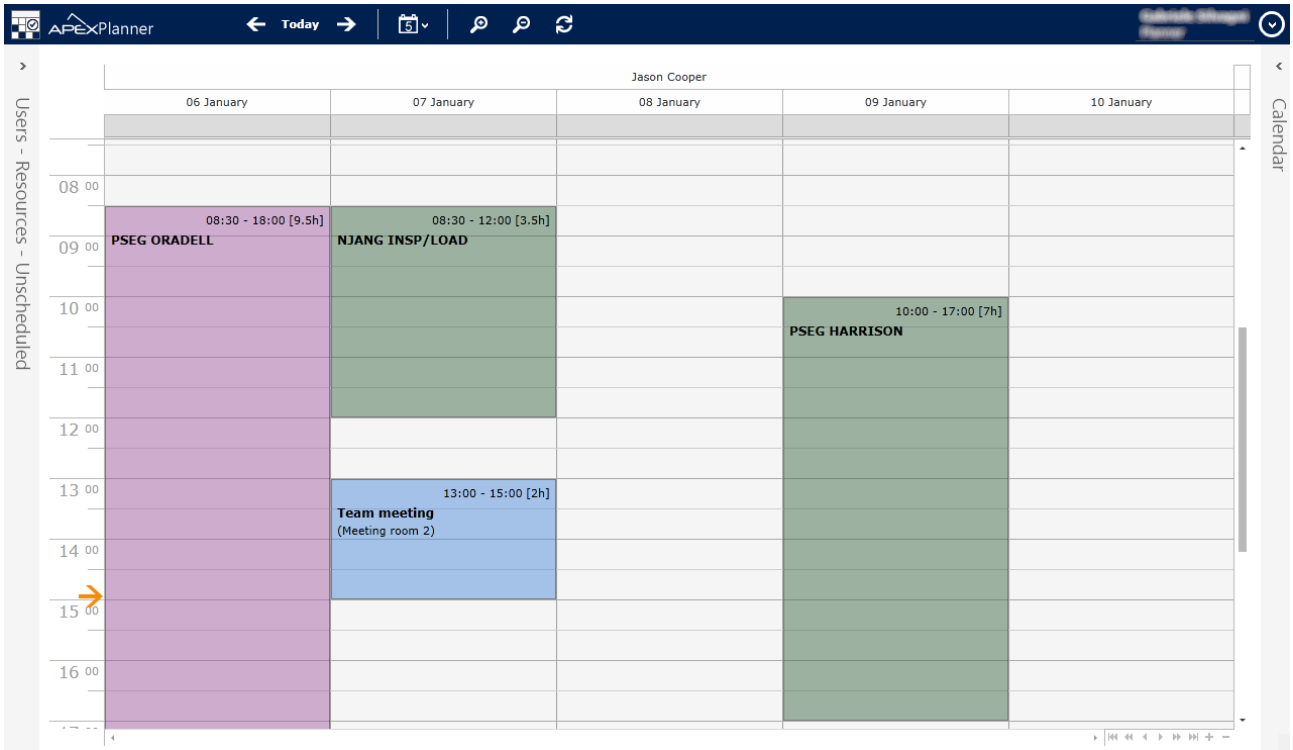
3.2.4. Week view

The Week view displays appointments for any given weekly period.



3.2.5. Work week view

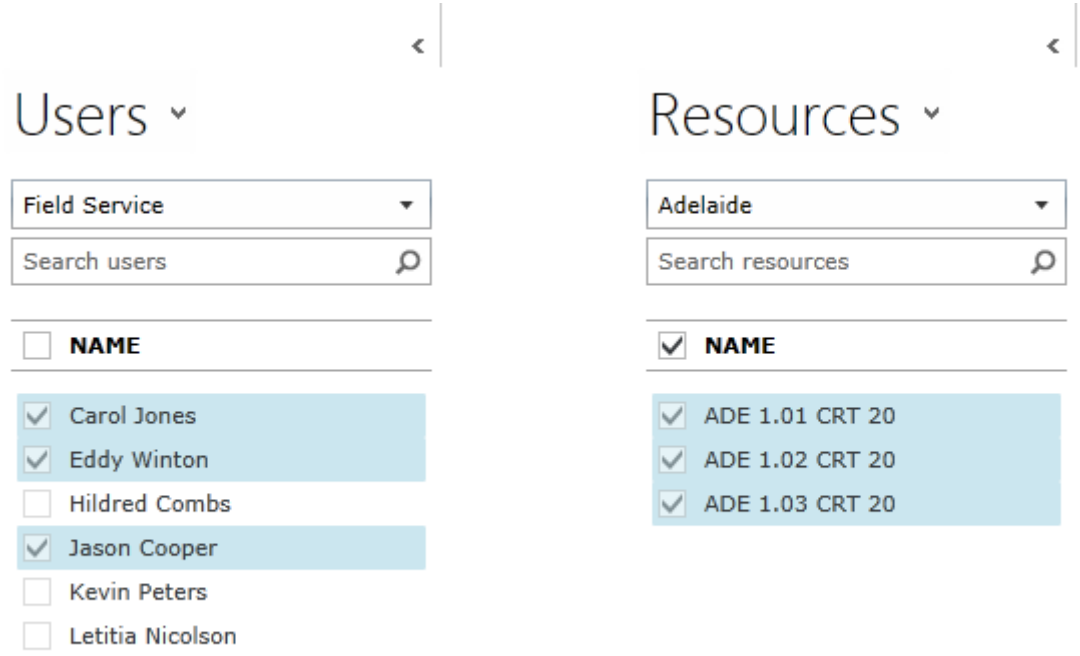
The Work week view displays appointments for the working days in a particular week.



3.3. User and resource panels

You can expand the user panel by clicking the arrow button on the top of “Users – Resources – Unscheduled” section. With the user panel, you can select which users you want to consider. You can type a filter string into the “Search users” text box and/or select a CRM team from the combo box. You can also select multiple users or resources.

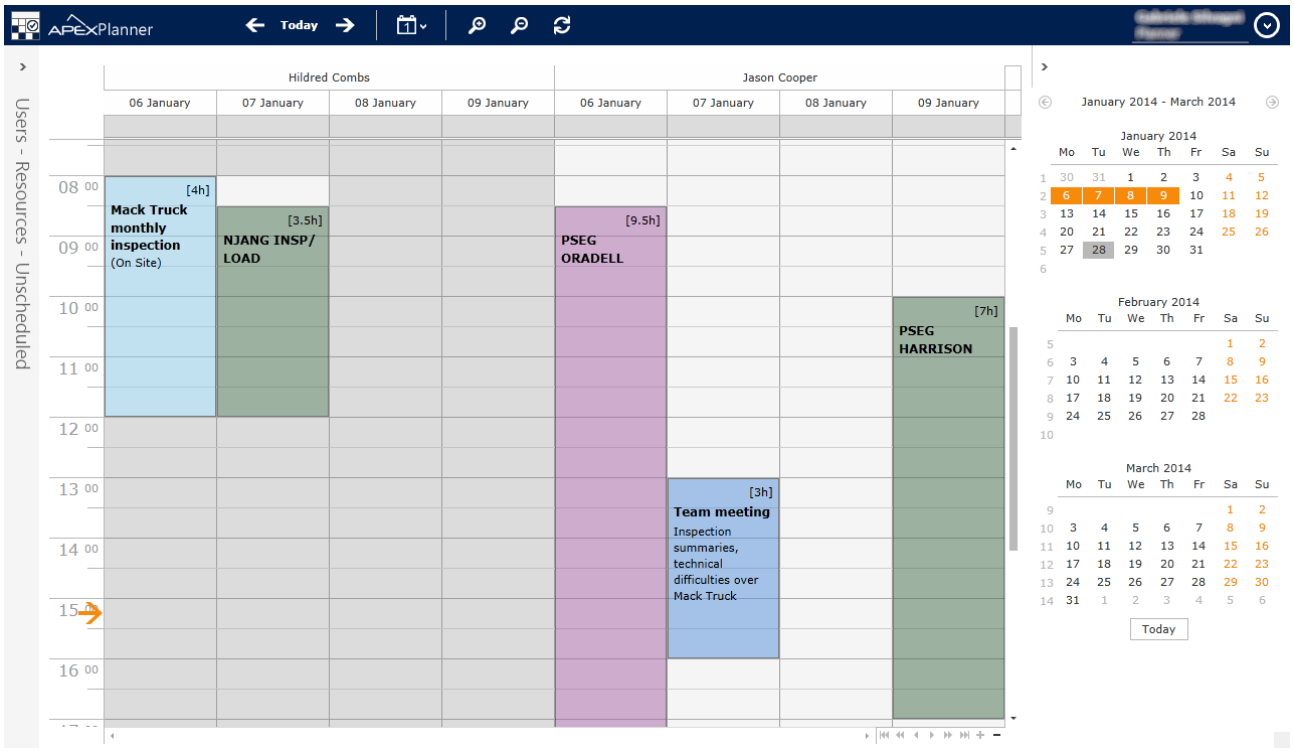
If you want to select/unselect all users or resources, click on the checkbox on the top of the list.



3.4. Calendar navigator pane

You can expand the navigator pane by clicking the arrow button on the top of “Calendar” section. With this calendar, you can easily switch between distant days. The data range that has been loaded is shown on the bottom of the panel.

If you **select more than one day** from the navigation panel, the planner will show the date interval you have chosen.



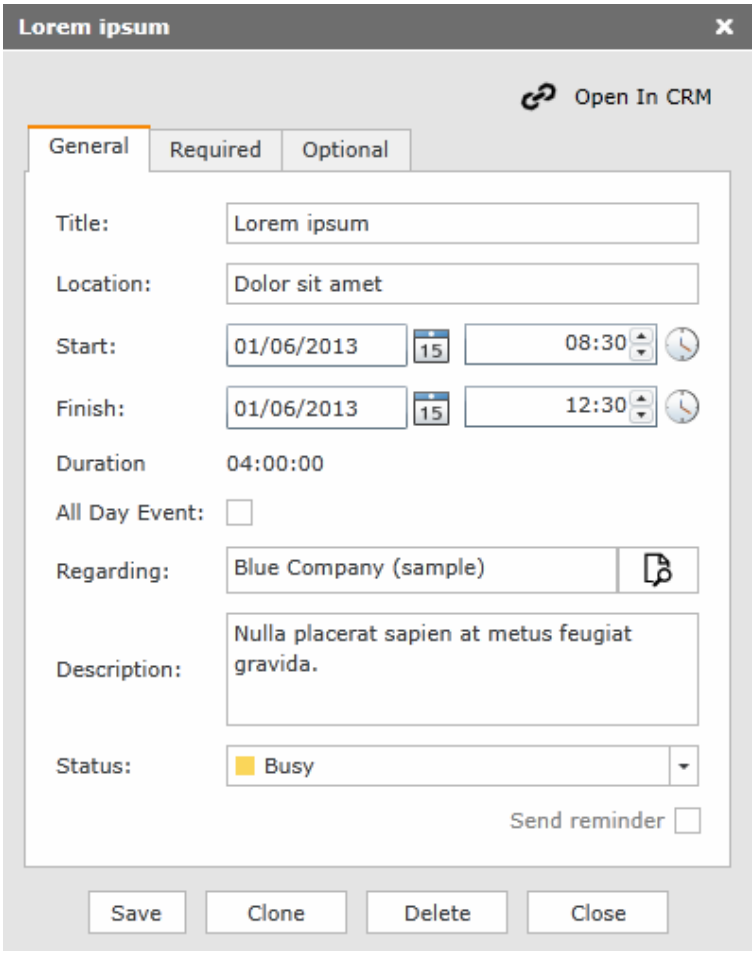
In this picture, you can see the appointments of Hildred Combs and Jason Cooper side by side. This view is opened when you pick the two users from the user panel and select a four-day interval from the date navigator.

4. Planning with Apex Planner

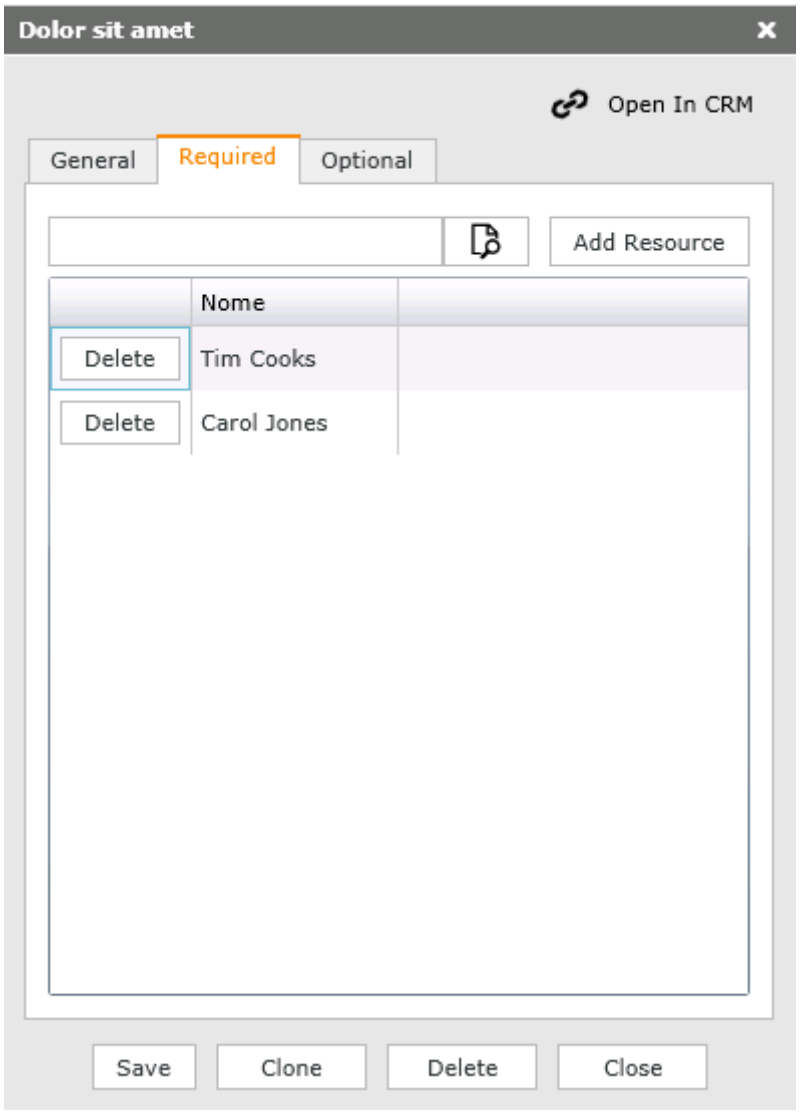
With Apex Planner it is easy to create new appointments and update the existing ones. You can simply drag and drop your appointments if you want to move them to different dates or you can change more accurately the appointment information using an edit dialog.

4.1. Create a new appointment

Select the day (hour in day view) in which you want to create the appointment: this day (hour) is now colored orange. Double-click and select “Appointment” from the list to open the “New appointment” dialog.



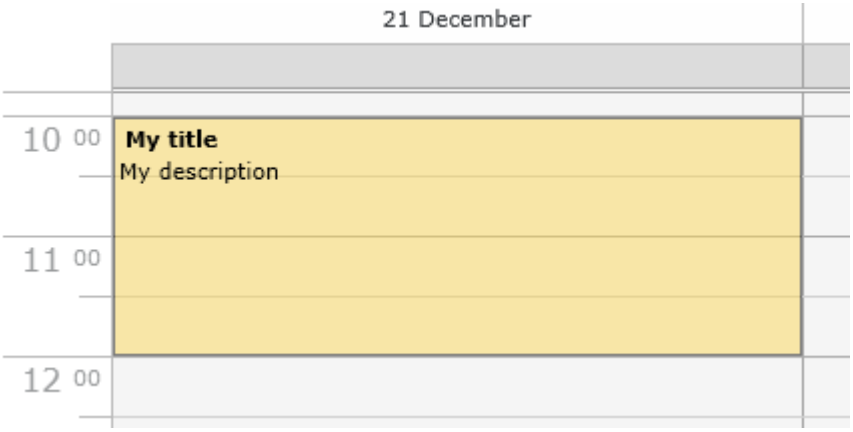
- **Title:** title of the appointment (mandatory).
- **Location:** the location of the appointment.
- **Start/Finish:** date and time when the appointment begins and ends. Finish date must be greater than start date.
- **All Day Event:** if checked the appointment is marked as an all-day appointment.
- **Regarding:** a lookup field pointing to CRM records.
- **Description:** description of the appointment.
- **Status:** a drop down list where you can select one of the possible appointment states. The planner shows different states using different colors.
- **Send reminder:** see Section 5.1.



In the **“Required”** tab, you can specify which users or resources are required for this appointment. Clicking on the lookup field opens a CRM dialog, where you can select the user/resource you want to add. Remember to click on “Add Resource” if you actually want to add the selected item to the list. Clicking on the button “Delete” removes the corresponding user/resource from the list.

The **“Optional”** tab works like the previous tab: it adds optional users or resources.

The resulting appointment is the following (on day view):



4.2. Edit appointments

When you want to update an appointment, you can just double-click on it and edit the information using the same dialog you have used to create it.

If you want to assign the appointment to another user, simply drag and drop the appointment on another user's section. This also works if you want to change the date of the appointment.

By pressing the button **"Clone",** you can create a new appointment form identical to that selected: you can edit its information before save it.

Pressing the button **"Delete"** removes the current appointment from both the planner and the CRM. You can also delete an appointment by right-clicking on it and selecting "Delete".

4.3. Service appointments

Service appointments behave in the same manner as appointments. The only differences are:

- There is one more mandatory lookup field named **"Service"**.
- There is one more optional field named **"Site"**.
- There is one more optional field named **"Customers"**.
- There is no "Optional" tab.

4.4. Recurring appointments

Double click on the planner and select "Recurring Appointment" from the "New appointment" dialog. When you create/edit a recurring appointment, you are always prompted to its CRM form.

If you double click on an existing recurrence of the planner, you are asked to choose between editing the single appointment or the entire recurrence.

Moving a single recurring appointment does not affect the entire recurrence.

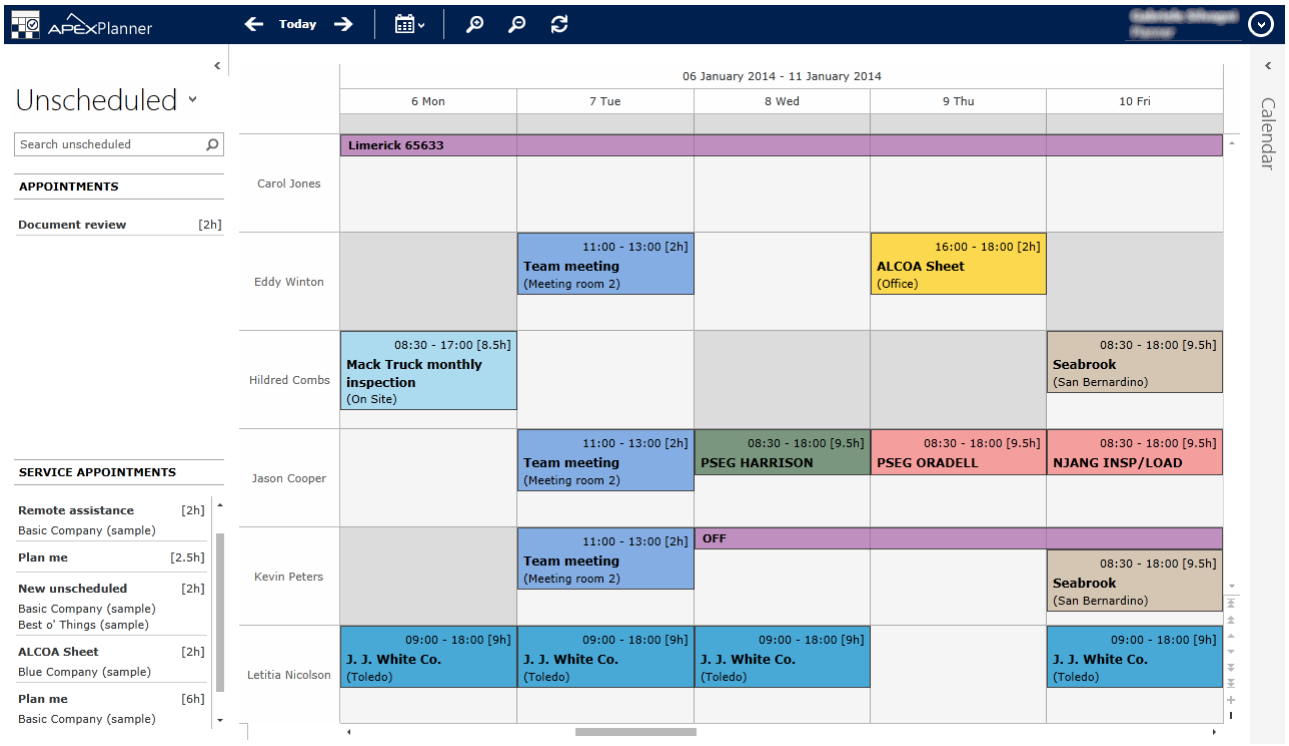
4.5. Copy appointments

You can create a copy of an appointment / service appointment by holding CTRL button and dragging the original appointment to a new position. The differences between this method and the Clone function are listed below:

- Clone creates a duplicate of the appointment form; Copy replicates also every custom field you may have on your entity.
- Clone is available only when you use standard Planner forms.

5. Scheduling unscheduled appointments

Apex Planner 2.0 introduced a new functionality: all the appointments and service appointment in your CRM that have no associated resources are showed in the “Unscheduled” section.



The unscheduled section is divided in two areas: one for appointments, one for service appointments: you can see their name, duration and customers (this one only on service appointments).

If you drag and drop an appointment on a user or on a resource, Apex Planner plans your appointment, making the following changes:

- The new resource for the appointment is the user of facility on which you have dropped it.
- The new start date is the date on which you have dropped the appointment.
- The new end date is the starting date plus the original appointment duration.

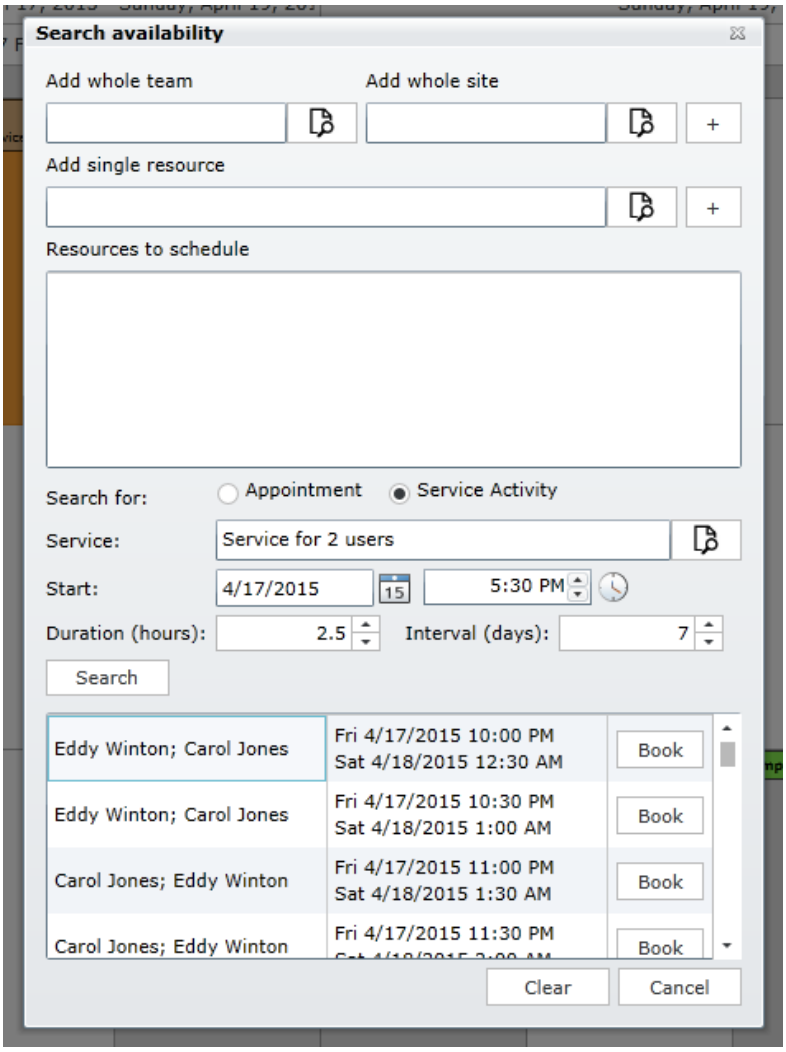
You can decide to unscheduled an appointment or a service appointment, removing all associated resources and thus placing it in the “Unscheduled” section: just right-click on the desired appointment and select “Unschedule” from the context menu.

The Planner normally does not show unscheduled appointments and service appointments. If you want to see them, set the field “**Show unscheduled appointments**” of your Planner configuration to “Yes”.

6. Search for availabilities

With this functionality you can search which user (or facility) is schedulable. You can specify when to start and choose the result you prefer: the Planner will open a new appointment or service activity that fits your choice.

You can open the search window by clicking on the corresponding button of the upper bar.



- **Add whole team / Add whole site:** add to the search terms all user that belong to the specified team and site. If both team and site are populated, only users that belong to both will be added. Click on the "+" button to add the corresponding resources.
- **Add single resource:** add a single user or facility to the search terms.
- **Resources to schedule:** contains the resources you want to schedule. The result window will show only time slots in which all of these resources are available.
- **Search for:** switches between appointments and service activities.
- **Service:** this lookup is visible (and mandatory) only for service activities. Insert here the service you want to schedule.
- **Start:** The date from which the search starts.
- **Duration:** the appointment/service activity duration in hours. When selecting a Service is auto-filled with the default service duration.
- **Interval:** the time span of the search in days.

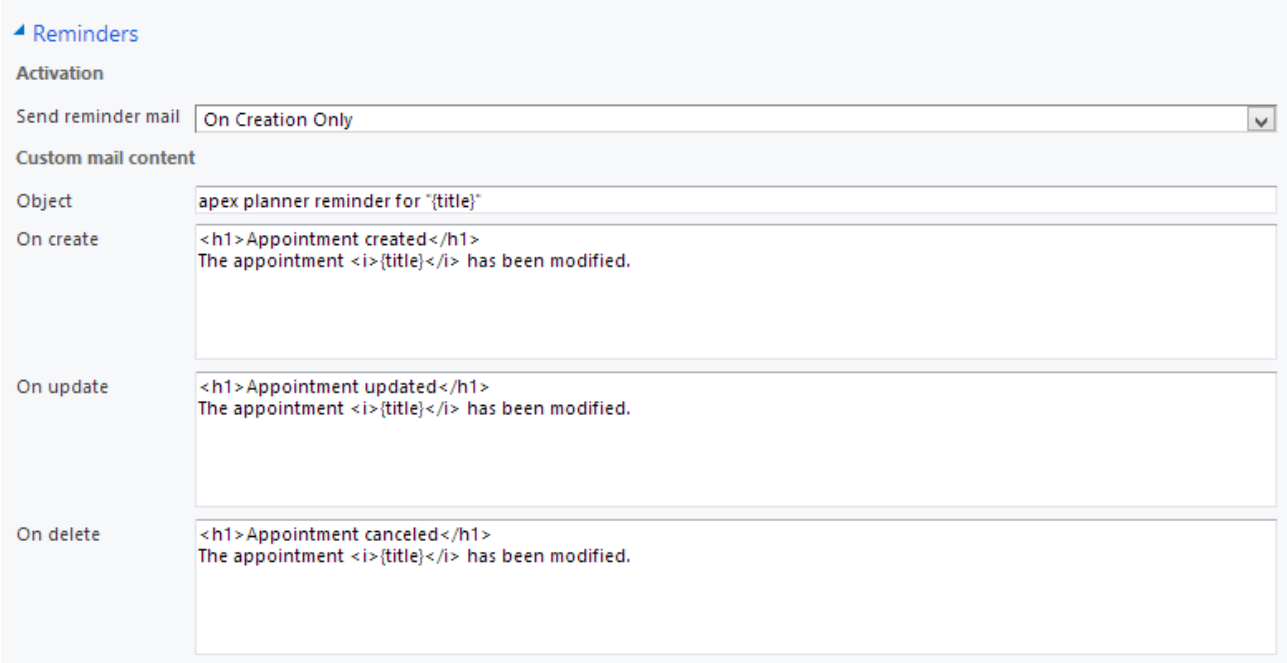
After clicking on the Search button, Apex Planner searches for available time slots, and shows them (if any) in the bottom grid. The grid displays the resources names, alongside the date intervals where they are available. Clicking the Book button next to a slot will open a new appointment or service activity which contains the chosen data.

When scheduling an appointment you must select at least one resource. When scheduling a service activity you can left the resource grid blank: Apex Planner will pick the resources for you, according to the roles of the service you indicated.

7. Using Apex Planner features

7.1. Reminders

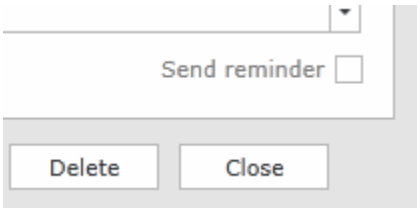
Since version 1.3, it is possible to send email reminders to all users participating in an appointment. All the reminder settings are located in the planner configuration entity.



You can choose three different default sending settings.

- **Disabled:** by default, no reminder will be sent.
- **On Creation Only:** the Planner sends a reminder every time an appointment is created.
- **On Create, Update and Delete:** a reminder is sent for every operation that occur on an appointment.

These settings are intended to activate or deactivate the “Send reminder” flag on the appointment forms. For example, if the “Send reminder mail” option is set to “Disable” every time you open an appointment form the flag defaults to disabled.



You can always choose to enable/disable the reminder sending for a specific appointment directly from its form, no matter what setting you have on the planner configuration.

The “Object”, “On create”, “On update” and “On delete” fields let you specify **custom objects and contents** for the reminder emails. If you leave them blank, the Planner will send messages with a default content, which includes some information about the appointment and the event that happened.

You can add html code to enrich the mail content. You can also include different **parameters** on both email object and content: the available parameters are {title}, {location}, {start}, {finish} and {description}.

7.2. Time zone settings

When you plan appointments for facilities that are outside your time zone, Apex Planner lets you see the appointment time in two different ways.

- **Local time zone:** your time zone is applied to all appointments.
- **Facility time zone:** every appointment that involves a facility uses that facility time zone.

Suppose that you are planning from UK, so using British time zone setting within your CRM. You create one appointments that involves a facility situated in Sidney. The start time you enter from the Planner is 9am.

If you set “Local time zone”, you have entered **9am UK time**, so the appointment is meant to start at 6pm Sidney time. If you set “Facility time zone”, you have entered **9am Sidney time**: note that, in this case, the CRM shows you the correspondent UK time, which is 12am.

7.3. Working hours

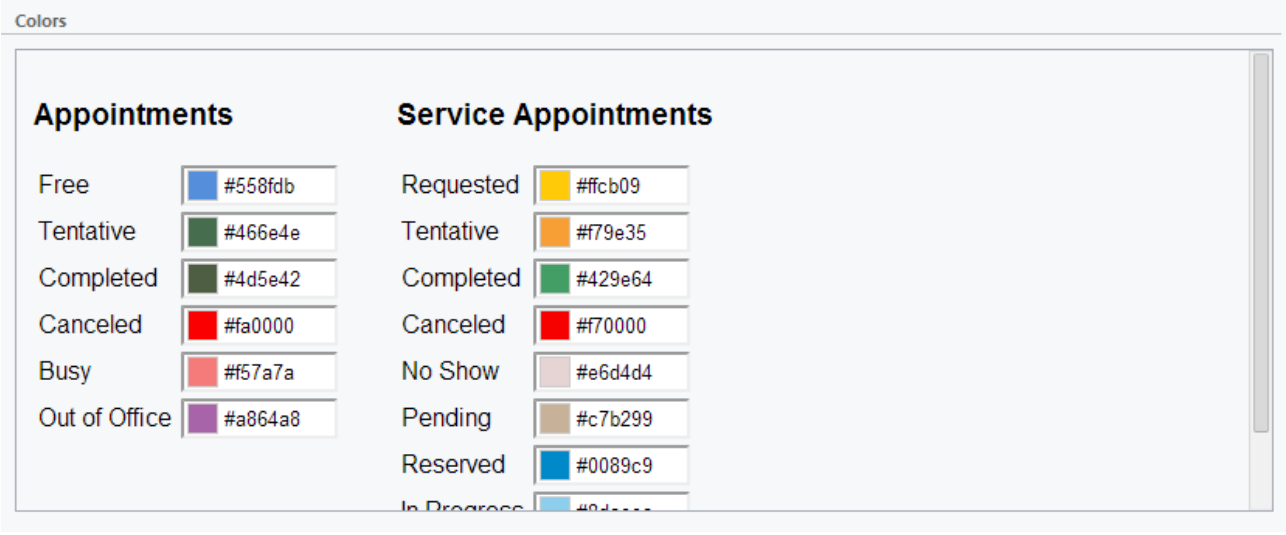
Apex Planner 2.0 displays handles **working hours for users and resources**. The Planner can have two different backgrounds:

- If the background is white, the user/resource is available.
- If the background is grey, the user/resource is not available.

You can set the working hours on CRM, on the User and Facility entities.

7.4. Appointment Colors

Each user can **customize the appointments color**, using the Planner configuration. The “Color” section of the “Appointments” tab lists all the status codes for the appointment and service appointment entities.



You can freely change the colors that are associated to each status code: if you save the Planner configuration, the new colors will appear on Apex Planner.

8. Troubleshooting

This section is intended as a quick help to resolve the most common errors. For any other trouble, feel free to contact us at planner@apex.it.

When opening Apex Planner, it stops working and displays the message: "License is not valid or expired".

- Check on the Planner configuration if the license key is correct.
- Check if your Organization Unique Name matches the one on the registration email. You can find the CRM Organization Unique Name under Settings -> Customization -> Developer Resources.
- Your demo license or your subscription may have ended. Contact planner@apex.it for a new license key.

I cannot see all my users on the Planner.

- Check the Planner configuration and see if there is a "User resource group" filter: only the users who belong to that group are loaded. You can leave that field blank if you want to load all users.
- Remember to publish the Resource group after you have created or modified it.

Apex Planner displays the message: "The maximum number of users allowed by the license has been exceeded…".

- Associate only the users you want to display to a Resource Group and add this group to the "User resource group" configuration field.
- Remember that also users with "Execute Apex Planner" security role need to be licensed.
- Contact us at planner@apex.it to get a new license for more users.

The Planner takes too long to load when changing the date interval.

- Try to set the field "Cached days" to a lesser value.
- Filter users and/or resources using "Default team" and "Default site" fields.

The Planner reloads too often when changing the date interval.

Try to set the field "Cached days" to a higher value.

I use standard CRM forms. When I open an appointment, some fields are not auto-filled.

Apex Planner uses a couple of custom fields to store temporary resource data.
The appointment / service activity / recurring appointment forms must contain the following (hidden) fields: "Apex Planner Extra Parameters" and "Is Unscheduled".

A generic error appears frequently when I try to modify appointments or service activities.

You may not have on CRM the permissions to do some of the operations you are trying to do on Apex Planner. Contact your CRM administrator.